

Gábor Szegő Centenary

Paul Nevai

Gábor Szegő was born one hundred years ago on January 20, 1895, in Kunhegyes, Hungary (and died on August 7, 1985, in Palo Alto, California).

To the mathematics community, Szegő is best known for his masterpiece *Aufgaben und Lehrsätze aus der Analysis*, vols. I and II (written



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with his mentor and friend, George (György) Pólya, Springer-Verlag, Berlin, 1924), which was used by generations of mathematics students (and their professors). Quoting Pólya: "It was a wonderful time; we worked with enthusiasm and concentration. We had similar backgrounds. We were both influenced, like all other young Hungarian mathematicians of that time, by Leopold (Lipót) Fejér. We were both readers of the same well-directed *Hungarian Mathematical Journal* for high school students that stressed problem solving. We were interested in the same kind of questions, in the same topics; but one of us knew more about one topic, and the other more about some other topic.

It was a fine collaboration. The book *Aufgaben und Lehrsätze aus der Analysis*, the result of our cooperation, is my best work and also the best work of Gábor Szegő."

For analysts, Szegő is best known for *Szegő's extremal problem* and his results on *Töplitz matrices* which led to the concept of the *Szegő reproducing kernel* and which were the starting point for the *Szegő limit theorem* and the *strong Szegő limit theorem* and for Szegő's theory of *Szegő's orthogonal polynomials* on the unit circle. These have been summarized in his books *Orthogonal Polynomials* (Colloquium Publications, vol. 23, American Mathematical Society,

Providence, Rhode Island, 1939) and *Toeplitz Forms and their applications* (jointly with Ulf Grenander, University of California Press, Berkeley and Los Angeles, 1958). The former is one of the most successful books ever published by the American Mathematical Society (four editions and several reprints).

Several of his friends, collaborators, and students have corresponded on a plan for a memorial (most likely a bronze relief to be set up in Kunhegyes in front of the city library) dedicated to Gábor Szegő.

Kunhegyes is a small town situated approximately 150 km southeast of Budapest. Szegő was one of the (two or three) most prominent people born there, so it is very appropriate to have a memorial placed there, especially since the citizens of Kunhegyes are committed to maintain such a memorial for many years to come. One might justifiably argue that either Budapest or Stanford would also be a proper place for such a memorial. As a matter of fact, there is a discussion going on about placing copies of the Szegő memorial in either Budapest or Stanford or both.

It is expected that such a memorial will cost in the neighborhood of three to five thousand U.S. dollars. For information on how to participate in this project, please contact either Paul Nevai, Department of Mathematics, Ohio State University, Columbus, OH 43210-1174, USA. (e-mail: nevai@math.ohio-state.edu, telephone: 614-292-3317) or perhaps the other sponsors of this project: namely, Dick Askey, Paul Erdős, Samuel Karlin, Peter Lax, Lee Lorch, Gilbert Strang, and Harold Widom, or one of the children of Gábor Szegő.

Finally, additional information can be found on Szegő at <http://www.math.ohio-state.edu/JAT/DATA/ATNET/szego>.

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